

ST REPORT WEEKLY ONLINE MAGAZINE

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From the Editor's Desk;

I am compelled to remember, at a time like this, a few simple things I was taught as a youngster, by The Sisters of Charity of Halifax, like there is a time and a place for everything. I now take the opportunity to extend our sincerest sympathy to Neil Harris and his family for the recent loss of his mother.

To be able to discuss our differences with GENIE and arrive at a agreement is wonderful. We will continue to serve as we have before and hopefully the future will be just dandy. We wish Darlah all the success possible for the new GENIE online publication, ST PROFILE.

Here at ST Report, we believe in Atari and, it is a basically GOOD company to do business with. We also find Mr. SIG HARTMANN a refreshing breath of fresh air. Perhaps the "changing of the guard" in the PR dep't. was the best thing that could have happened. Mr. Hartmann's attitude of being straight forward and "telling it like it is" can do more for Atari

than all the hype and hoopla some others have tried to use and failed.

Since CINDY CLAVERAN is the new User Group Coordinator appointed by Sig Hartmann, Atari President of Software, things have been getting back into the groove and are becoming well organized. Cindy will be working on the User Group News, under the ATARI COMPUTER banner. You can contact her at Atari Corp (408) 745-2569, or on GENie by "Cindy.C". May we remind the Usergroups to please re-register your group with Cindy if you wish to continue to receive the Usergroup Newsletter from Atari.

This is Halloween and I hope all the kiddies have a safe and happy time trick or treating tonight. In a few weeks we shall see what Comdex has to offer, I am positive Atari is going to set the world on fire, with it's news and product releases. I am however, sworn to secrecy at least till Comdex opens....

Ralph.....

FOR YOUR INFORMATION:

The Atari Forums will be sponsoring a National Online Teleconference on Wednesday, November 9, 1988 at 8:00 PM EST.

Our guest speaker will be:

Ralph F.Mariano ("REX READE")
Editor and Publisher, ST REPORT weekly online news magazine.

We encourage each and every one of you to attend. Especially those of you who have any questions to ask of Mr. Mariano

The ST REPORT Conference is going to be held in CompuServe's Electronic Convention Center(tm) (GO CONVENTION). Please read ECC.TXT in LIBRARY 17 of ATARIARTS or ATARIPRO for more information.

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ANAIAS WHO?

by R.F.Mariano

The tall and TOTALLY impressive Wizard drifted into the cavern approximately 5 inches above the craggy floor....As he glided slowly to a halt he effortlessly turned toward us and said;

"The Challenge of Lord Chaos awaits all mindless mortals who would dare to attempt to overpower Him. I spent an intense amount of time instructing a mortal and instilling upon him the rites and tomes necessary to teach and assist each of you in your quest of Lord Chaos. This mortal is known as Bob Retelle and he has prepared

** THE LOST SCROLLS OF MOUNT ANAIAS **

for those strong willed and stout hearted souls wishing to overcome Chaos".

After being thoroughly chilled by the thoughts of stealthly sneaking through the dark, damp corridors of a dungeon that reeked from the odor of death itself, I realized I was only reading the intro to Bob's new effort at helping all the "good" folks caught in Dungeon Master. This is going to be the top honors, all time favorite, most popular game for the computing community and this hint book is right up to speed. The reading is easy, concise and to the point. The great thing is you are NOT given the adventure on a silver platter. After all, everyone hates going to the theater and have someone tell you what is going to happen. Bob has made sure this will not happen. You are not spoon fed the dungeon. I highly recommend this fine hint book....it is one of the nicest efforts I have seen and it has excellent maps and illustrations throughout. It is worth the price of 9.95.

THE LOST SCROLLS OF MOUNT ANAIAS
by BOB RETELLE

Order From:

Unicorn Publications
3487 Braeburn Circle
Ann Arbor, MI 48108

This is "GOOD" stuff!

A Veteran Retires

By R.F. Mariano
as told by N. Bradley

This poor 1040 has seen better days, he said holding the ST. Having just returned from 6 months in the Persian Gulf on the USS JOHN HANCOCK. Neil hoped having a 1040 onboard would help pass the time during the 6 mo. deployment from home. It definately did help, but took a beating in the process. Right now the computer is missing 1 key, the mouse port has a short, the mouse had to be replaced, and all the chips had to be re-seated due to vibration. The monitor took a hit from a power spike, and is now being replaced as well.

"My poor 1040 has been taped in place so many times (to keep it from falling off the desk) that the marks on the cabinet look like dents. The thing is so full of dust, the board has a grey tint to it."

Note: The Persian Gulf is famous for it's dust, it gets in EVERYTHING!

A total of five programs have to be replaced due to being corrupted by the power of the ship's radar systems. (the Onboard Radar Systems also damaged his hard disk and it had to be returned for repair/replacement).

The 1040 is very succeptable to vibrations. One day, after booting the computer, it just sat, disk drive whirring, and finally displayed on the screen: "The data on your disk is damaged...". This came up with EVERY disk tried, needless to say Neil was a little worried. He then remembered hearing about the infamous "drop test" for the early 1040's. He opened the computer - low and behold 4 chips had vibrated loose. The worst one was the keyboard chip, when he pushed on it you could hear the "snap" of it re-seating. "I can only guess that the continual vibration from the engines and generators as well as the rocking back and forth finally wiggled the chips loose." He said.

"My 1040 and I have been through quite a bit together....
I will miss you, but you deserve to be retired. We have visited 4 countries, sailed thousands of miles, transited the Suez Canal, been in a war zone including 2 miles away from dogfighting Iranian/Iraqi fighter jets and full rocket fire. We fearlessly sailed the mined Persian Gulf, witnessed the end of a war, and have been transported from ship-shore 4 or five times in what seemed like dingies."

"Yes my friend, I will miss you. I look forward to meeting your replacement. No, I don't think he will take a similar voyage. He will stay safe at home on my desk. Farewell, and for thee I pray.... fair weather and following seas." Neil said, as he wrapped the 1040 for it's trip home.....

After seeing the condition of the 1040 and monitor, I was proud to have held the 1040 that "went to war"....I wouldn't be surprised if deep inside that 1040 a chip or two had some how said a few bits to a few of the "big boy" chips on the bridge of that Destroyer. Ed.

DIGI-DRUM ST

by Dave Triwush
MVACE

Well, I might just as well get the point of this review out of the way immediately... Unless you've got the Replay Sound Sampling Cartridge with which this application interfaces, or something compatible, Digi-Drum ST is a waste of money. (Actually, it may be a waste regardless, as I hadn't the Replay hardware to use with this software's review, either.) Digi-Drum gives the option of either cartridge or monitor output, but let's face it, folks, monitor output is adequate for speech synthesis and such, but stinks for music reproduction (my own admittedly subjective opinion, but there you go). However, if this admonition is not daunting (or you have Replay), by all means read on!

First, let's look at the Replay-related features - perfunctorily, since I have to take the documentation's word on them. In conjunction with Replay, you can sample your own drum sounds (breaking glass? dog barks?), at either 10 or 20 kilohertz (Khz), save them to disk individually, and use them in your drum patterns with the provided samples in any combination, up to 16 voices per "drum kit". "Kits" may also be saved and loaded as units. Replay allows playback through the cartridge, giving, one would assume, improved fidelity over the monitor speaker's capabilities. You get a 1.64 second sample at 10 Khz; half that or 0.82 sec at 20 Khz. This should be more than sufficient for any percussion-oriented sounds.

Unfortunately, I have only Digi-Drum to review here. No sampling; and the default kit and 6 additional samples provided actually sound worse than bad through the monitor - they mostly sound alike! So let's hope Replay helps here.

Digi-Drum ST permits up to 16 sounds (one kit) to be used at once. However, this does not mean 16-voice "polyphonic"; only 2 sounds can be played on a given beat: there are two channels. Sound "events" are grouped into patterns or "bars" of 4 to 32 beats. These may also be manipulated individually as disk files, and up to 99 may occupy memory at a time, or so says the very brief manual. Elsewhere, the manual says

32 patterns may be used. The real limit may be 99; paging through the numbers under "Edit Pattern" caused a neat line of four bombs after pattern number 42! However, up to 70 "pattern-events", including loops and jumps, do constitute a "song", the largest entity loadable from or savable to disk.

You can create patterns two ways; real-time or by poking beats into the bar from the palette of 16 sounds. The real-time method is clumsy at best; you get a flashing beat indicator to play on top of, but no click or audible signal, and you need to juggle function keys 1-4. Function keys? That's right, folks, this program is not GEM-based; except when doing disk loads or saves. These operations present the familiar file selector window, and the mouse pointer appears and works; as soon as the operation is complete, however, the pointer vanishes, and you're stuck with cursor, function and the escape keys to run the program. I found the combination particularly frustrating. What's more, these keys do not have the same functions throughout the program, and beware the escape key! It takes you out of most of the pull-down menu features, but also exits the program with an extra hit, without reminding you to save any work you may have accomplished! So be warned, you heavy-handed typists out there. But I digress. . .

Actually, this program is simple enough to use, though clumsy; for example, loading, saving, editing patterns, setting tempo, editing a "song", and playing the "song", all require different, mutually exclusive areas of the menu bar! This is in marked contrast to other basic programs like Music Studio, which have their own limitations, but still allow everything to be done without lots of screen switching. Well, in spite of these flaws, I must say that Digi-Drum ST does work, and in tandem with the Replay hardware, should sound pretty good. However, I personally would wait for a subsequent version that supplies full GEM implementation, or at least much better consolidated user interface.

Digi-Drum ST will run on any ST system, color or monochrome, and comes on one copy-protected single-sided disk. The documentation included is a 13 page booklet, but only 4 pages are in English; the rest is German. I gather there is more information in the German portion (which, obviously, I don't speak). Oh, well!

In conclusion, Digi-Drum ST serves as a functional but difficult "toy"; serious musicians or otherwise "spoiled" users are advised to look elsewhere for a drum-machine program. Digi-Drum retails for \$39.95 but is available at Microtyme for \$20.95. Thanks to John at Microtyme for the review copy.

ITALY and ATARI

by Neil Bradley

When I visited Genoa, Italy in early August, I had no real goal in mind except to find an Atari dealer, so I could see what Europe had to offer. After spending most of the morning searching computer stores, I finally was referred to "the only Atari dealer in town."

Walking down a main street near the Genoa shipyard, there it was, a small shop with a red sign in the window with the Atari logo on it. Upon closer inspection of the window, I also saw a Commodore Amiga, Commodore C-64, Amstrad, BBC Dragon, Spectrum 512, and Atari 2600 and 5200 video games. The store, with the name of "Play Time", did not seem to be the place to find a ST. With a sigh, I walked in and saw about 30 games for the ST in a display case. With my broken German and the salesman's broken English, I was able to determine that yes, he sold Atari ST computers, and in fact, he had a MEGA 2 sitting behind the counter. He seemed very surprised that an American would be interested in the ST, as he had read that the U.S. was "not interested in the ST, but liked the Amiga better."

I went to examine the software that he had on display, and saw a few games that I liked. I inquired about the price for ARKANOID 2, and his first words were * "Original or Copy?" *

He must have noted the surprised look on my face, and explained that he could sell me a copy of the program for the equivalent of \$10.00, while the original would cost me about \$40.00. If a game I wanted to purchase had two disks, it would cost me \$12.50. I asked him how many ST programs he sold, and he stated "about 5 a week, all copies, of course".

The salesman then asked me to wait, and he called a friend from the local Atari users group (at least that's what I think he said he was doing), and told me to "Bring some American programs back later that afternoon, and we can trade some programs one-for-one."

I returned later that afternoon with about 10 disks of public domain programs and a few American programs I saw he had in the window. I also brought along some old issues of Computer Gaming World, ST Log, Compute's ST, and ST Informer. I asked him what copy program he was using, and he said that he only used the Amiga for copying. I asked him what Atari program, and he again said that he used the Amiga. He walked over to the Amiga, and booted up a "utility" that would copy Atari, IBM 3.5, Xenix, and Amiga disks. He again saw the look on my face and said that by far this was the most efficient copy program available. (He said that the only program that couldn't be copied with the Amiga was Dungeon Master). He took all of the public domain programs and all the copies of ST REPORT I had, and he especially liked "Superboot" he had never seen anything like it. He opened up his four disk boxes (each holding about 90 disks) and told me to "take my pick" of anything there. I ended up taking about 3 disks worth European Public domain utilities and pictures. He kept insisting I take anything, but I declined.

He was very interested and impressed with the Kaypro disk box I had, everything there was in plastic. I showed him an article in one of the magazines I had brought. He then glanced through the rest of them, but seemed most impressed with ST Informer. He requested that he be allowed to keep it, so he could start a subscription. He appeared to be mostly interested in the advertisements/articles for memory upgrades and building hard drives. I asked him what were the big selling magazines in Italy, and he said Computer and Video Games Plus from England was the only one - but the company was splitting, and starting a separate

magazine for the 16 bit computers.

Finally I offered to trade him an unopened game I had - PALADIN by Omnitrend (I mistakenly ordered two copies, and hadn't sent the 2nd back yet) for SHADOWGATE by Mindscape. He accepted, and asked if I had any other unopened games to trade. When I informed him I didn't, he again insisted I take some copies of games back with me, since I gave him so much and took so little.

During our conversations, I found out that the primary use for the ST in Italy is word processing, followed by games. The biggest sellers are Arcade. Graphic adventures are second, Role Player Games third, and war/strategy games a distant fourth.

One other observation - during the entire time I was there, customers were coming in and out, most buying Commodore programs (all copies). No one seemed to care about buying copies, it all appeared quite customary and the right thing to do.

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PROFESSIONAL GEM by Tim Oren
Column #10 - VDI Graphics: Text Output

This issue of ST PRO GEM concludes the two column series on VDI with a look at simple VDI text output, and ways to optimize its speed. There is also a Feedback section. You may find the associated download file under the name GMCL10.C in DL3 of the ATARI16 SIG (PCS-58).

To keep the size of this first discussion of text within reason, I am going to restrict it to use of the mono-spaced system font in its default size and orientation. Discussion of alternate and proportionally spaced fonts, baseline rotation, and character scaling will become a later article in this series.

DEFINITIONS. This article makes use of some terminology which may be unfamiliar if you have not used digital typefaces. A mono-spaced font is one in which each character occupies an identically wide space on the screen. A proportional font has characters which occupy different widths. For instance, an 'l' would probably be narrower than a 'w'.

Text may be "justified" right, left, or center. This means that the right character, left character, or center position of the text string is constrained to a given location. In common

usage, a page of text is "ragged right" if its lines are left justified only. The text page is "fully justified", "justified" or (ambiguously) "right justified" if BOTH the left and right characters are constrained to fixed columns. Full justification is produced by inserting extra blank characters in the case of a mono-spaced font, or by adding extra pixel columns in the case of proportional output.

A text character (in a monospaced font) is written inside a standard sized cell or box. Vertically, the cell extends from the "top line" down to the "bottom line". If there are one or more blank lines at the top or bottom, they are called "leading" and are used to separate lines of text. The characters themselves always fall between the "ascent line", which is the highest line reached by characters such as 'd' and 'l', and the "descent line", which is the lowest line in characters like 'q' and 'g'. Other locations of interest are the "half line", which is the top of characters like 'a' or 'n', and the "base line", which is the bottom of characters which do not have descenders.

Before plunging into the Attribute Functions for text, you should note that the writing mode (vswr_mode) and clipping rectangle (vs_clip) attributes discussed in the last column (#9) also pertain to text. Since much of the discussion of text optimization will center on these attributes, you may want to review them.

TEXT ATTRIBUTES. The writing color for graphics text is set with the command:

```
vst_color(vdi_handle, color);
```

Vdi_handle is always the handle returned from graf_handle() at application startup. Color is a word value between 0 and 15 which designates the output color index. As discussed in previous columns, the actual color which appears is dependent on the current palette settings. In applications such as word and outline processors it is important that characters and their background provide good contrast to avoid eyestrain. In these situations, you may want to use the setPalette and/or setColor XBIOS functions to force the palette to a known state before starting the application.

You can choose a variety of special output effects for your text with the call:

```
vst_effects(vdi_handle, effects);
```

Effects is a single flag word, with the bits having the following significance:

- 0 - Thicken
- 1 - Lighten
- 2 - Skew
- 3 - Underline
- 4 - Outline
- 5 - Shadow

In each case, turning the bit on selects the effect. Otherwise, the effect is off. Any number of multiple effects may be

selected, but the result may not always be pleasing or legible.

The "thicken" effect widens the character strokes by one pixel, resulting in the appearance of boldface type. The "lighten" effect superimposes a half-tone dither on the character. This mode is useful for indicating non-selectable text items, but is not legible enough for other purposes.

The skew effect shifts the rows of the character to the right, with the greatest displacement at the top. This results in the appearance of italic text. You should be aware that the VDI does not compensate for this effect. This means that a skewed italic character which is immediately followed by a normal blank will be overstruck, and part of the top of the character will disappear. Likewise, a skewed character written to the left of an existing normal character will overstrike part of it. There is a related bug in the VDI clipping logic which may cause some parts of a skewed character not to be redrawn if they fall at the edge of a clipping rectangle, even though they should fall within the region.

The outline effect produces output which is a one pixel "halo" around the normal character. The shadow effect attempts to create a "drop shadow" to the side of the character. These effects should be used very sparingly with default sized fonts. They often result in illegible output.

When graphics text is written, a screen coordinate must be specified for the output. The relationship of the text to the screen point is determined by the call:

```
vst_alignment(vdi_handle, hin, vin, &hout, &vout);
```

Hin and vin are each words, with values specifying the desired horizontal and vertical alignment, respectively. Hout and vout receive the actual values set by the VDI. If they differ from the requested values, an error has occurred.

Hin may be set to zero for left justification, one for center justification, or two for right justification. The coordinate given when text is written becomes the "anchor point" as described in the definitions above. The default justification is left.

Vin determines what reference line of the text is positioned at the output coordinate. The selection values are:

- 0 - baseline (default)
- 1 - half line
- 2 - ascent line
- 3 - bottom line
- 4 - descent line
- 5 - top line

A common combination of alignments is left (0) and top line (5). This mode guarantees that all text output will lie to the right and below the output coordinate. This corresponds with the AES object and GRECT coordinate systems.

Finally, the call to do the actual output is:

```
v_gtext(vdi_handle, x, y, string);
```

X and y define the screen coordinate to be used as the alignment point. String is a pointer to a null terminated string, which must be total eighty characters or less, exclusive of the null. This limit is imposed by the size of the intin[] array in the VDI binding. Be warned that it is NOT checked in the standard binding! Exceeding it may cause memory to be overwritten.

One Inquire Function is useful with text output. The call

```
vqt_attributes(vdi_handle, attrib);
```

reads back the current attribute settings into the 10 word array attrib[]. The main items of interest are attrib[6] through attrib[9], which contain the width and height of characters, and the width and height of the character cell in the current font. You should rely on this function to obtain size information, rather than using the output of the graf_handle() function. On the ST, graf_handle() always returns sizes for the monochrome mode system font, which will be incorrect in the color screen modes.

Attrib[1] will contain the current graphics text color as set by vst_color(). Attrib[3] and [4] contain the horizontal and vertical alignment settings, respectively. Attrib[5] contains the current writing mode, as set by vswr_mode().

OPTIMIZATION. The most common complaint about using bit maps for character output is lack of speed. This section suggests ways to speed things up. By adopting all of these methods, you can realize an improvement of two to three times in speed.

BYTE ALIGNMENT. Since writing graphic text is essentially a bit-blit operation, characters which have "fringes", that is, do not align evenly with byte boundaries, will suffer performance penalties. The default system fonts in all resolutions of the ST are a multiple of eight pixels wide, so the problem reduces to assuring that each characters starts at a byte boundary in the screen bit map. This will be true if the horizontal pixel address of the left edge of the character is evenly divisible by eight.

Obviously, byte alignment is easiest to enforce when the horizontal justification is right or left. Doing so with centered text is possible, but requires adding padding blanks to odd length strings.

When writing text within windows, it is helpful to assure that the edges of the window working area are byte aligned. There is a section of code in the download which shows a technique for converting a user requested window position and/or size to its working dimensions, byte-aligning the width and horizontal position, and computing the adjusted external window coordinates.

WRITING MODE. The fastest text output mode is replace. All other modes require reading in the target raster area and merging it with the new information. You may find that you must use transparent or reverse transparent mode, for instance, to use or preserve an underlying background color other than white. In this case, you can still do some optimization by filling in the background color for the entire string with a v_bar() call, rather

that no one there spoke English, and didn't seem to know what Atari was. I finally went back to the ship, made a copy of the Atari logo, and took that with me. In the first store I showed it too, the owner immediately smiled, and wrote an address down on a piece of paper, and got the message across to show it to a taxi, and he would take me there. Because of the ever present threat of terrorism, I decided to try the same thing in a different store. When I showed him the address and the Atari logo, he too agreed that the address was the Atari dealer.

I took a taxi to the address. When I got out, there was this big office building with small stores on the ground floor. One of these stores had a small Atari sign, as well as much larger Commodore and Amstrad signs in the window.

When I went in, the store owner was very polite, spoke excellent British English, and showed me his stock of ST's: 520FM (British version), 1040, and MEGA 2 & 4, all on display. He then showed me the 3 programs he had in stock, and said that he could get just about anything in 3 weeks. (His software distributor was from the U.K.). I explained my desire about purchasing a mouse, but he was unable to help me, as he did not carry spare parts. He said that all repairs had to be sent to Saudi Arabia, as there was no local facility to repair ST's in country.

I asked him if there was a local Users Group or Atari club, and he seemed completely befuddled - didn't know what I was talking about. I then asked if there were any bulletin boards, and he pointed to one there in the shop. When I explained about BBS's, he said definately not, because "If I had never heard of something like that, there is no such thing in Bahrain". He also stated that he was the only Atari store in Bahrain. I then asked him how the Atari was doing, and he got a little defensive, said "fine" and changed the subject. The only thing I was able to get from him was that the best selling ST was the 520 FM, since a monitor was not required.

- Abu Dhabi, UAE (United Arab Emirates)

The only other middle eastern country I visited was UAE. Here, the people did not speak as much English, but were generally more friendly. My first shopping day in the UAE brought me a surprise - there were Atari 2600 game machines in almost every store in the SOUK (The Arab version of an outdoor shopping mall). After asking in each store about the ST, I finally found a small, one-room shop (about the size of an apartment living room) with stacks of 2600 game machines in it. Upon questioning the storekeeper, he showed me the box of a 520fm, and said that it belonged to someone else, as it had just arrived that day via special order from Dubai (another large city-state in the UAE). He stated that yes, he was one of two ST dealers in Abu Dhabi, but the other dealer would be better for what I wanted, since the other dealer dealt in computers vice video games.

I got the address from him, and searched out the other store. This store was located one block from a large hotel, and was not difficult to find. The day I was there the store was closed for vacation. So much for Abu Dhabi.

- Cannes, France

On the way home, the ship stopped in Cannes, France. The only Atari I found there was in one large department store. Their prices for both hardware and software were outrageous (about 25% more than the U.S.). The

salesmen did not know of any user groups in the area.

All in all, the ST was there, but hard to find. The prevalent computer seemed to be the Amstrad, followed by the C-64. In all cases the ST was there, but not as prevalent as I expected, especially in Europe. From what I was able to determine, the ST sells best in Germany and the UK, followed by Spain, France, Italy and Scandinavia. Everyone I talked to thought that the ST was dead in the U.S., and Amiga was king. Prices for both hardware and software were higher. I believe that the dollar value had some effect on this, but the ST still seemed a bit more expensive than here. In every case, there were no ST only shops, all of the shops carried the ST as a second computer.

220-ST Terminal Emulator

by Douglas D. Hodson
MVACE

With so many terminal programs out there, you probably are wondering what could a new one offer? We have Flash, ST-Talk Professional, Interlink, and several other outstanding terminal programs available for the ST. What 220-ST offers is good solid emulation of several DEC (Digital Equipment Corporation) terminals integrated into an easy to use package. The program is very straightforward! Run it and your ST screen looks exactly like a VT100 or one of the several other emulation modes the program supports. Click the right mouse button and a menu of file transfer protocols appears. Click the left mouse button and all sorts of terminal controls can be set. Its that simple!

220-ST supports emulation of the following 4 terminals: VT52, VT100, VT200 (with 7-bit controls) and VT200 (with 8-bit controls). The program allows you to control all aspects of the communication, display (including 132 column mode!), screen dumps to the printer, keyboard characteristics (even configure the ST backspace key to mean delete, very nice for VAX communications), tab control and of course color control. The program also supports MACRO commands (that you define). For example you can make the keystroke ALT-A to mean dial a local VAX. All of these macro commands and terminal characteristics can be saved into files for later use.

Notice I said files instead of file, let me explain the difference. Macro commands can be stored in a file. Terminal characteristics can be stored in another file. Dial up phone lists stored into another. This is probably the most confusing aspect of the program. There are to many different "easy setup" files to load. Yes you can have the Terminal characteristics file (its called a Set-Up Storage file in the documentation) load a macro file automatically, if you desire, but I find it just a little to much unnecessary work. I must admit the 3 file system is probably more "powerful" in terms of flexibility, but at the

cost of ease which is what the rest of the program provides.

The emulation is real, it fools my VMS VAX and Unix VAX at work completely. The VAX now thinks my ST is a DEC terminal, and that's the goal of the program. I'm very impressed by the program and the documentation provided is quite good. The program also provides online help in a quite clever way. At any point where several "buttons" (or options) are present, clicking the Atari logo and then clicking one of the buttons provides help on that button. I thought this was a neat way to provide help... I hope other software writers take note of this.

220-ST was written by Tricom Software and published by MichTron and was provided on loan for review to the ACEs by MicroTyme. The program retails for \$49.95, but is available from MicroTyme for \$25.95 and is well worth the price!

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Sunnyvale, CA -----	Sig Hartmann reassures the Developers that they will prosper by developing for the ST line in the "US".
Los Angeles, CA -----	Genlok for the ST is real and right around the corner as soon "Uncle Charley" (FCC) approves it. (Type Acceptance # issued) In an election year they take SO LONG?.....how dumb.
Denver, CO -----	Federated vows a super professional appearance with "Compu-Centers" and highly trained personnel to man them, might not be a bad idea...<grin>
Tucson, AR -----	Stereo Sound for the ST is HERE! The miracle workers at Practical Solutions have done it AGAIN!! The Tweetie board makes the ST a Stereo machine. Want more info or one of the goodies? Give 'em a call at : 602-884-9612
Orem, UT -----	While Word Perfect has stated it is not going to be releasing any new products for the ST, chances are after Comdex, they will reconsider this posture very seriously. Especially since they are developing a GERMAN version of WP for export.
Thousand Oaks, CA -----	WORD UP! Headed by Shelby Moore and Mike Fulton, are not your run of the mill developers and have not been discouraged by the market. They are constantly improving their product and...we say it is in the top three of word processing and the most powerful in the G-Dos arena at this time..(almost to the level of DTP) for more info: NEOCEPT 805-498-3840....
Jacksonville, FL	ST REPORT CONFIDENTIAL finds itself being the most

----- popular and copied feature of our magazine...well
everybody loves gossip! We see "psst" type columns
appearing in most all the hard copy pubs. Thanks for
the compliment.

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Linda Woodworth
4604 East 16th Street
Cheyenne, WY. 82001

4375M Thompson - MGA Multi-sync monitor with the ST

NOTES:

- 1) You must invert the Horiz and Vert Sync (use 4069 IC)
- 2) Use Practical Solutions Monitor switcher
- 3) Monitor does not have audio, must use external amp and speaker
- 4) Add 68 ohm resistors in series with RGB from Computer.

PICTURE CLARITY

The DOT Pitch on the Thompson is the same as the original ST Color monitor (.31) and the convergance on this monitor is very good. The only problem I have is that it is a 14 inch monitor and you need to sit back another two feet for the scan lines to look the same (the Atari Monitor is a 12 inch). Or you can reduce the size of the screen with the Vert and Horiz size controls.

Monochrome is good (higher scan rate) but you need to change the vert size to max to get the proper ratio (Horiz/Vert size). You need to add 68 ohm

resistors in series with the RGB lines from the computer as Color output has a tad too much drive for this monitor. Monochrome out from the ST needs to drive three lines (R,G,B) and loads down so that its drive is slightly lower. (resistors not needed)

FEATURES

This monitor has superimpose ability, multi-sync ability, switching from TTL to Analog mode with either a switch or line going high-low on the Analog plug. Composite Video, TTL, EGA , VGA, PGA and Analog modes are all supported.

CONCLUSION

This monitor should give you a very useable picture and give you the added benefit of having Mono mode available with the click of a button. Not to mention that the new Computers Atari is coming out with will need a Multi-Sync for those higher resolutions and more colors. By the way, the current price of this monitor is \$399.00 mail order.

TECHNICAL NOTES

Thompson brings out a 5v supply on the Analog plug that you can use to power the sync inverter (4069 IC) this line can't power anything more than .25W. I used 1/2 of a printer cable I had lying around...the DB25 male that plugs into the ST for the Analog plug to the Thompson.

Below are the pin assignment for the ST and the Thompson.

Thompson DB 25 Plug		Atari Monitor Plug	
=====		=====	
Pin #	Signal description	Pin #	Signal description
2	Red video .6v +going	7	Red Video 1VPP +going
4	Green video .6 +going	6	Green Video 1VPP +going
14	Blue video .6 +going	10	Blue Video 1VPP +going
16	Horiz sync TTL Pos	9	Horiz Sync TTL Neg
17	Vert sync TTL Pos	12	Vert Sync TTL Neg
21	5 Volt supply	8	12 Volt supply for pullup
1	Ground	13	Ground
3	Ground	1	Audio output
5	Ground	4	Monochrome Detect
15	Ground	11	Monochrome lvpp +going
25	Ground		

There are many ways that you can connect, using switches relays or solid state switching IC's, these pins together to achieve Mono and Color modes. I'll just give examples for both modes and leave the actual choice of method to you.

```

***** COLOR *****
Thompson      Res 68 ohm      Atari
Pin 2-----Pin 7
Pin 4-----Pin 6
Pin14-----Pin 10

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          4069 IC      (Sync Inverter)
          |-----|
Pin 9 Atari -|1      14 |--5v Pin 21 Thompson
Pin 16 Thompson-|2    13 |-Gnd

```

Pin 12 Atari -	3	12	
Pin 17 Thompson-	4	11	-Gnd
Gnd -	5	10	
	6	9	-Gnd
Gnd -	7	8	

All grounds are carried through. Pin 14 of the 4069 is bypassed to ground with a 4.7 Ufd cap. Unused input pins on logic chips should not be allowed to float. They must be attached to ground or B+.

***** Monochrome *****

Thompson	Atari
Pin 2-----	Pin 11
Pin 4-----	Pin 11
Pin 14-----	Pin 11
	Pin 4 to Gnd (Mono Switch Line)
	Pin 13 Gnd

All grounds carried through....use same Sync circuit. Sync is the same for both Color and Mono mode. Audio is not provided in the Thompson Monitor and you will have to provide an external amp and speaker for the sound.

The most important thing to realize is that monochrome and color lines can not be hooked up at the same time, that's why you need a multi-pole switch like in Monitor master and the new Astra Monitor switch box. You can make your own or buy one from the above companys. The only part that might be hard to get would be the Atari Plug. One source of the Monitor Plug is Practical Solutions 602-884-9612.

There are many possibilities allowed for in design of the Atari Monitor output plug. Pin 3 of that plug is a general purpose Output line that can be used to throw an electronic latch so that no mechanical button is necessary to switch between Mono and Color mode.

Jeff Rigby
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THIS WEEK'S QUOTABLE QUOTE
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POST'S EQUATION:

For EVERY article, there is a compliment and an equal
and very opposite criticism!

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